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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/733,267

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Masahiko Suzuki

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EXAMINER

SCHECHTER, ANDREW M

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/733,267

Applicant(s)

SUZUKI ET AL.

Examiner

Andrew Schechter

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 11 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) 14 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

1. Claim 11 is objected to because of the following informalities: "pixel electrode" in line 4 should be "a pixel electrode"; "output electrode" in line 5 should be "an output electrode"; "common electrode" in line 6 should be "a common electrode"; "form" in line 6 should be "forms"; "superpose with transparent electrode" in line 14 should be "is superposed with a transparent electrode"; "an electrode is superpose" in line 19 should be "an electrode which is superposed". Appropriate correction is required.
2. Claim 13 is objected to because of the following informalities: "the electrode" in lines 10 and 12 should be "the transparent electrode". Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites "a layer on which an electrode is superpose with the heat diffusion member" in lines 18-19. The scope of this limitation is unclear. Is this "an electrode" the same as the "transparent electrode" previously recited, as in claim 13, or

is it a separate claim element (and would the claim require that such a separate claim element be distinct in the device or could a single electrode fulfill both roles)? For examination purposes, it is assumed that "an electrode" is meant to be "the transparent electrode" in line 19, and "the electrode" in the last line is meant to be "the transparent electrode".

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claim 13 is rejected under 35 U.S.C. 102(e) as being anticipated by *Maruyama et al.*, U.S. Patent No. 6,654,073.

*Maruyama* discloses [see Figs. 7-9, for instance] a display device comprising a metal [col. 9, lines 39-42] heat diffusion member [53] which is superposed with a transparent electrode [31, col. 11, lines 66-67] having an insulating film [3, 4] therebetween, wherein the heat diffusion member has a projecting portion [51] at a portion thereof remoter than a distance between the heat diffusion member and a thin film transistor [40], and the heat diffusion member is superposed on the transparent electrode at the projection portion, and wherein an inorganic insulation film [3, silicon

nitride] and an organic insulation film [4, acrylic resin] are provided between a layer on which the heat diffusion member is formed and a layer on which the (transparent) electrode superposed with the heat diffusion member is formed, and the organic insulation film has a removed portion [33] at least at the superposed portion between the heat diffusion member and the (transparent) electrode. Claim 13 is therefore anticipated.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Maruyama et al.*, U.S. Patent No. 6,654,073 as applied above.

*Maruyama* discloses a liquid crystal display device comprising thin film transistors [40], scanning signal lines [10a, 10b], data signal lines [20a, 20b] which are arranged in a state that they intersect the scanning signal lines, a pixel electrode [31] electrically connected to an output electrode [43] of one of the TFTs; and a pixel region which is surrounded by neighboring two of the scanning signal lines and neighboring two of the data signal lines, wherein a metal heat diffusion member [53] which is disposed in a spaced apart manner from the TFT [it is separated by the horizontal branch of the metal layer, labeled 43 - the examiner notes that the metal heat diffusion

layer in the applicant's figures is similarly spaced apart from the TFT, while connected to wiring which is part of the TFT], the heat diffusion member has a projecting portion [51] which is remoter than a distance between the TFT and the heat diffusion member, the projecting portion is superposed with a transparent electrode [31], the transparent electrode being one of the pixel electrode and the common electrode, and an inorganic insulation film [3] and an organic insulation film [4] are provided between a layer on which the heat diffusion member is formed and a layer on which the (transparent) electrode which is superposed with the heat diffusion member is formed, and the organic insulation film has a removed portion [33] at least at the superposed portion between the heat diffusion member and the (transparent) electrode.

*Maruyama* perhaps does not explicitly disclose a common electrode which forms an electric field between the common electrode and the pixel electrode, at least in the discussion of the embodiment referred to above. *Maruyama* does disclose such a common electrode as an element of a generic LCD of this type in the background of the invention section [col. 1, line 25]. It would have been obvious to one of ordinary skill in the art at the time of the invention to have a common electrode on the opposing substrate, to produce an electric field between the common electrode and the pixel electrode, motivated by the desire to control the liquid crystal molecules between them in the conventional manner and thereby produce a working liquid crystal display. Claim 11 is therefore unpatentable.

***Election/Restrictions***


9. Claims 14 and 15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made without traverse in the reply filed on 19 May 2005.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Schechter whose telephone number is (571) 272-2302. The examiner can normally be reached on Monday - Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Andrew Schechter  
Primary Examiner  
Technology Center 2800  
5 March 2006